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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,236	04/02/2004	Michio Tsujiura	MM4661	3066
1109	7590	05/31/2005	EXAMINER	
ANDERSON, KILL & OLICK, P.C. 1251 AVENUE OF THE AMERICAS NEW YORK,, NY 10020-1182			BUDD, MARK OSBORNE	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/817,236

Applicant(s)

TSUJIURA, MICHIO

Examiner

Mark Budd

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Congdon.

Congdon as best shown in figures 5, 9 and 10 teaches a piezoelectric ceramic cylinder (belt) with internal (lower) electrodes in registry with external (upper) electrodes. It is not explicitly clear whether the electrodes have a square shape. However, it has long been held that optimization of a device for a particular application is within the skill expected of the routineer. Thus, depending on the dimensions of the piezo cylinder, it would have been obvious to one of ordinary skill in the art to provide suitable dimensions (or shapes) for the electrodes of Congdon. Regarding claim 34, the method of manufacturing a device is not germane to the patentability of the device thus this limitation has not been given patentable consideration.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Congdon in view of Kinoshita.

Congdon as noted above, teaches the claimed structure but provides only a single row of electrodes around the circumference of the piezoelectric element. Kinoshita, especially figs. 3-9, teaches more than one row of electrodes can be provided for the purpose of altering the beam pattern of the device. Thus, for at least this reason,

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it would have been obvious to one of ordinary skill in the art to provide Congdon with plural rows of electrodes.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 5 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Park.

Note Park, figures 1A, 1B which show a piezoelectric element with a plurality of round electrode pairs formed by vapor deposition on the upper and lower surfaces of the element. Although a polymer material is preferred, ceramic was given consideration and was indicated as used in prior art devices. Thus use of ceramic is anticipated by the reference.

Claims 5 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawasaki.

Note figure 13(b), 15 and 16 which teach a polarized piezoelectric ceramic having upper and lower square electrodes in registry.

Due to the application of new prior art the above rejections are not made final.

Further cited of interest are Brennemann, Trott (fig. 5), Kolesar (fig. 2, 4a), Iguchi and Ruell.

Budd/ds

05/19/05

MARY D. BUDD
PRIMARY EXAMINER
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